



OCT 06 2021

US Magnesium LLC

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801/532-2043 - 800/262-9624 - FACSIMILE 801/534-1407

CERTIFIED MAIL

September 30, 2021

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
Mail Code 8ENF
1595 Wynkoop Street
Denver, CO 80202-1129

**RE: 2021 ANNUAL COMPLIANCE CERTIFICATION, OPERATING PERMIT NO.
4500030003 – US MAGNESIUM, LLC ROWLEY FACILITY**

Dear Madam or Sir:

Please find enclosed the 2021 Annual Compliance Certification Report for the US Magnesium, LLC Rowley facility as required by Operating Permit No. 4500030003, Condition I.L.1.

If you have any questions or require additional information, please feel free to contact me at (801) 532-1522 ext. 1355.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rob J. Hartman", with a horizontal line extending from the end of the signature.

Rob Hartman, P.G.
Environmental Manager
US Magnesium LLC

Enclosure

TO: Executive Secretary, Utah Air Quality Board

FROM: US Magnesium LLC

RE: Annual Compliance Certification for Permit # 4500030003 (Dated December 12, 2018; Date of Last Revision: January 22, 2021)

DATE: September 30, 2021

In accordance with Operating Permit provision I.L and Utah Administrative Code (UAC) R307-415-6c(5), the following compliance certification is submitted.

This certification covers operations from 09/01/2020 to 08/31/2021.

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
Permitted Activities				
I.B	Was the source operated in compliance with the operating permit?	Recordkeeping	Intermittent	Refer to Terms I.S.2.a, II.B.1.j, and II.B.21.a for other information relevant to compliance status.
Duty to Comply				
I.C.3	Did the permittee furnish information requested by the Executive Secretary?	Recordkeeping	Continuous	
Permit Expiration and Renewal				
I.D.2	Application for renewal of this permit is due on or before the date shown under "Enforceable Dates and Timelines"	Recordkeeping	Continuous	
Permit Fee				
I.G.1	Did the permittee pay the annual emission fee?	Recordkeeping	Continuous	

COMPLIANCE CERTIFICATION REPORT

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I.G.2	Was the fee paid on time?	Recordkeeping	Continuous	
Inspection and Entry				
I.J.1.a	Did the permittee allow entry of Director or authorized representative?	Recordkeeping	Continuous	
I.J.1.b	Did the permittee provide access to and copy, at reasonable times, any records that must be kept under the condition of the permit?	Recordkeeping	Continuous	
I.J.1.c	Did the permittee allow inspection at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under the permit?	Recordkeeping	Continuous	
I.J.1.d	Did the permittee allow sampling or monitoring at reasonable times of substances or parameters for the purposes of assuring compliance with the permit?	Recordkeeping	Continuous	
Certification				
I.K.	Were all application forms, reports and certifications submitted pursuant to the permit properly certified by a responsible official?	Recordkeeping	Continuous	
Compliance Certification				
I.L.1	Did the permittee submit this compliance certification complete & on time?	Recordkeeping and Reporting	Continuous	
I.L.2	Did the permittee also send all compliance certifications to EPA?	Recordkeeping and Reporting	Continuous	
Records and Reporting				

COMPLIANCE CERTIFICATION REPORT

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I.S.1.a	Did the permittee properly retain all records required by the permit for a period of at least 5 years?	Recordkeeping	Continuous	
I.S.1.b	Did the permittee include all applicable information in records of monitoring required by the permit?	Recordkeeping	Continuous	
I.S.2.a	Did the permittee submit monitoring reports every six months or more frequently if specified in Section II, and were all instances of deviation from permit requirements clearly identified in the monitoring reports?	Recordkeeping and Reporting	Continuous	On November 2, 2020, USM submitted a six month report to DAQ covering the period from April 1, 2020 to September 30, 2020. On May 14, 2021, USM submitted a six month report to DAQ covering the period from October 1, 2020 to March 31, 2021. On or about October 30, 2021, USM will submit a six month report to DAQ covering the period April 1, 2021 to September 30, 2021. Collectively, these reports have and will identify all instances of deviation from permit requirements for the operating period covered by this certification.
I.S.2.c	Did the permittee promptly notify the Executive Secretary of all deviations from permit requirements?	Recordkeeping and Reporting	Continuous	
Inventory Requirements				
I.U	Inventory Requirements: Did the permittee submit the inventory required by R307-150 in accordance with the requirements of that rule?	Recordkeeping	Continuous	USM certified its SLEIS 2020 air emissions inventory (AEI) submittal on April 15, 2021.

COMPLIANCE CERTIFICATION REPORT

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Conditions on Permitted Source (Site-Wide)				
II.B.1.a	Source-wide chlorine emissions shall not exceed 3,300 tons per rolling 12-month period. Emissions from scheduled maintenance shall not be included in calculating compliance with the limits listed above.	Recordkeeping and Reporting	Continuous	
II.B.1.a.1	Chlorine emissions shall be determined by a mass balance equation, which shall be approved by the Executive Secretary before being implemented.	Recordkeeping	Continuous	
II.B.1.a.2	The permittee shall calculate annual total source-wide chlorine emissions by 20 th day of each month, using data from the previous 12 calendar months. The permittee shall keep records for all period when the plant is in operation and the records shall be made available to the Executive Secretary or Executive Secretary’s representative upon request.	Recordkeeping	Continuous	
II.B.1.a.3	The permittee shall submit an annual source-wide chlorine emissions report. The permittee shall submit to the Executive Secretary, a monthly rolling 12-month total source-wide chlorine emissions report, by the 20th day of each month, using data from the previous 12 calendar months. The parameters used to calculate the chlorine emissions shall be submitted with the chlorine emission totals.	Recordkeeping and Reporting	Continuous	
II.B.1.b	Chlorine emissions from scheduled maintenance shall not exceed 7,500 tons per rolling 60-month period.	Recordkeeping	Continuous	
II.B.1.b.1	Chlorine emissions shall be determined by a mass balance equation, which shall be approved by the Executive Secretary before being implemented.	Recordkeeping	Continuous	

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II.B.1.b.2	<p>Records shall be kept for all periods of scheduled maintenance. The permittee shall calculate a new 60-month total by the 20th day of each month using data from the previous 60 calendar months. However, for the first 60 months, the beginning of the period shall be January 2001, and the 60-month rolling total will not begin until January 2006.</p> <p>The permittee shall make records available to the Executive Secretary or Executive Secretary's representative upon request.</p>	Audit and Recordkeeping	Continuous	
II.B.1.b.3	The permittee shall submit a monthly chlorine emissions report by the 20th day of each month to the Executive Secretary. The report shall include the rolling 60-month scheduled maintenance chlorine emissions. The parameters used to calculate the chlorine maintenance emissions shall be submitted with the chlorine emission totals.	Recordkeeping and Reporting	Continuous	
II.B.1.c	At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.	Recordkeeping	Continuous	

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II.B.1.c.1	Records required for this permit condition will serve as monitoring.	Recordkeeping	Continuous	
II.B.1.c.2	Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.	Recordkeeping	Continuous	
II.B.1.d	All unpaved roads and other unpaved operational areas shall be water sprayed and/or chemically treated to control fugitive dust. Treatment shall be of sufficient frequency and quantity to minimize fugitive dust as necessary, to meet any applicable opacity limitations of this permit. Treatment shall be with calcium chloride, magnesium chloride, or equivalent (equivalency shall be determined by the Executive Secretary). The permittee is not required to apply water to surfaces during freezing conditions. If chemical treatment is to be used, the plan shall be pre-approved by the Executive Secretary.	Recordkeeping	Continuous	
II.B.1.d.1	Records required for this permit condition will serve as monitoring.	Recordkeeping	Continuous	
II.B.1.d.2	Instances of water and/or chemical application to unpaved areas shall be recorded and maintained by the permittee. The ambient temperature shall be recorded any time water should be applied but cannot be due to freezing conditions.	Recordkeeping	Continuous	
II.B.1.e	Visible emissions shall be no greater than 20 percent opacity unless otherwise specified in this permit.	VEO ¹ and Recordkeeping	Continuous	

¹ 40 CFR 60, Appendix A, Method 9 Visible Emission Observation by certified observer.

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II.B.1.e.1	A visual opacity survey of each affected emission unit shall be performed on a monthly basis, unless otherwise specified in this permit, by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than condensed water vapor are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9 for point sources, and in accordance 58 FR 61640 Method 203A for fugitive sources.	VEO ¹ and Recordkeeping	Continuous	
II.B.1.e.2	A log of the visual opacity survey(s) shall be maintained in accordance with Provision I.S.1 of this permit. If an opacity determination is indicated, a notation of the determination will be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 or 58 FR 61640 Method 203A shall also be maintained in accordance with Provision I.S.1 of this permit.	Recordkeeping	Continuous	
II.B.1.f	Visible emissions shall be no greater than 40 percent opacity for the combined plumes of the spray dryers, M/R stack, and EOG stack.	VEO ¹ and Recordkeeping	Continuous	
II.B.1.f.1	A visual opacity survey of each affected emission unit shall be performed on a monthly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than steam are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.	VEO ¹ and Recordkeeping	Continuous	

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II.B.1.f.2	A log of the visual opacity survey(s) shall be maintained in accordance with Provision I.S.1 of this permit. If an opacity determination is indicated, a notation of the determination will be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 shall apply and be maintained in accordance with Provision I.S.1 of this permit.	Recordkeeping	Continuous	
II.B.1.g	The permittee shall only combust diesel fuel that meets the definition of ultra-low sulfur diesel (ULSD), which has a sulfur content of 15 ppm or less.	Recordkeeping	Continuous	
II.B.1.g.1	Compliance with this limitation shall be determined either by testing each fuel delivery for the sulfur content or by inspection of the fuel sulfur-content specifications provided by the vendor in purchase records.	Recordkeeping and Vendor Specification	Continuous	The vendor specifies that the sulfur content of diesel fuel shall be no greater than 15 ppm.
II.B.1.g.2	Compliance with the above limitation shall be demonstrated by maintaining fuel receipt records showing sulfur content of the delivered fuel or maintaining records of all sulfur content testing performed on the delivered fuel.	Recordkeeping	Continuous	All records of sulfur content testing performed by the vendor.
II.B.1.h	The permittee shall comply with the applicable requirements for recycling and emission reduction for class I and class II refrigerants pursuant to 40 CFR 82, Subpart F - Recycling and Emissions Reduction.	Recordkeeping	Continuous	
II.B.1.h.1	The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart F.	Recordkeeping	Continuous	
II.B.1.h.2	All records required in 40 CFR 82, Subpart F shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	

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II.B.1.h.3	All reports required in 40 CFR 82, Subpart F shall be submitted as required.	Recordkeeping	Continuous	
II.B.1.i	The permittee shall comply with the applicable requirements for servicing of motor vehicle air conditioners pursuant to 40 CFR 82, Subpart B - Servicing of Motor Vehicle Air Conditioners.	Recordkeeping	Continuous	
II.B.1.i.1	The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart B.	Recordkeeping	Continuous	
II.B.1.i.2	All records required in 40 CFR 82, Subpart B shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit	Recordkeeping and Audit	Continuous	
II.B.1.i.3	All reports required in 40 CFR 82, Subpart B shall be submitted as required.	Recordkeeping	Continuous	
II.B.1.j	The permittee shall comply with all applicable requirements in 40 CFR 63, Subpart TTTTT – National Emission Standards for Primary Magnesium Refining	Recordkeeping and Source Testing	Intermittent	<p>Source testing performed September 30, 2020 and March 18 through 22, 2021 demonstrated compliance for all stacks and parameters required to be tested.</p> <p>A summary of the total duration of the deviations and the total duration as a percent of the total source operating time during that reporting period per §63.9931(b)(8)(v) were reported in the Semiannual NESHAP Reports for US Magnesium LLC covering the period July 1, 2020 to December 31, 2020 and January 1, 2021 to June 30, 2021.</p>

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II.B.1.j.1	The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 63, Subpart TTTTT.	Recordkeeping and Reporting	Continuous	Compliance status as stated under II.B.1.j above.
II.B.1.j.2	The permittee shall maintain all records required in 40 CFR 63.9932 and 63.9933.	Recordkeeping	Continuous	
II.B.1.k	Visible emissions in disturbed areas and unpaved haul roads shall not exceed 20% opacity at any point. Visible emission determinations for fugitive dust from operational disturbed areas shall use Method 9 and should be performed once every month when it is operating. However, with respect to emissions from mobile or intermittent sources, the normal requirement for observations to be made at 15-second intervals over a six-minute period shall not apply. Visible emissions shall be observed at the densest point of the plume but at a point not less than 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle.	Recordkeeping	Intermittent	
II.B.1.1	The plant-wide natural gas consumption shall not exceed 9,900 MMscf per rolling 12-month period. The permittee shall determine compliance with a rolling 12-month total, no later than 20 days after the end of each month. The permittee shall maintain all records of consumption on a monthly basis.	Recordkeeping	Continuous	

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Conditions on Solar Pond Diesel Engines (Unit # SP-01)				
II.B.2.a	The permittee shall use only #2 or better diesel fuel, fuel oil, or crankcase oil recycled on site, as a fuel in any diesel generator or pump engines. The percent of the crankcase oil in the fuel shall not exceed 5% by weight.	Recordkeeping and Vendor Specification	Continuous	Only #2 purchased. The blending of diesel fuel with crankcase oil has been discontinued. The blending equipment has been removed.
II.B.2.a.1	Records of fuel type used and blended shall be monitored once a month. Prior to the 20th day of each month, the permittee shall verify the types of fuel blended and verify that the quantity of recycled crankcase oil used during the previous month did not exceed 5% by weight.	NA	Continuous	Not applicable: The blending of diesel fuel with crankcase oil has been discontinued. The blending equipment has been removed.
II.B.2.a.2	The permittee shall maintain a log of the types of fuel burned and the quantity of used crankcase oil blended into the fuel, for all fuel used in the diesel generators and pump engines.	NA	Continuous	Not applicable: The blending of diesel fuel with crankcase oil has been discontinued. The blending equipment has been removed.
II.B.2.b	Total number of horsepower-hours (Hp-hr) shall be no greater than 26.59 MMHp-hr per rolling 12-month period.	Recordkeeping	Continuous	
II.B.2.b.1	Horsepower-hour production shall be determined by monitoring the hours of operation of each engine during the month and multiplying the number of hours of operation by the nameplate horsepower. By the 20th day of each month a new 12-month total shall be calculated by the permittee using data from the previous 12 calendar months. All engines shall be equipped with time devices which record the number of hours each engine has operated.	Recordkeeping	Continuous	
II.B.2.b.2	Results of monitoring shall be maintained as described in Provision I.S.1 of this permit.	Audit and Recordkeeping	Continuous	
II.B.2.c	Visible emissions shall be no greater than 20 percent opacity.	VEO ¹ and Recordkeeping	Continuous	

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II.B.2.c.1	A visual observation of each affected emission unit shall be performed once each six month period (January through June, and July through December) that the unit operates, by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation. If the unit only operates during the last month of any six month period, the opacity observation requirement may be performed during the next consecutive calendar month to comply with the time frame of this limitation	VEO ¹ and Recordkeeping	Continuous	
II.B.2.c.2	Results from opacity observations and all data required by 40 CFR 60, Appendix A, Method 9 shall be recorded and maintained in accordance with Provision I.S.1 of this permit.	Recordkeeping	Continuous	
II.B.2.d	<p>The permittee shall comply with all applicable requirements in 40 CFR 63, Subpart ZZZ – National Emissions Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines</p> <p>Emissions of CO shall not exceed 230 ppmvd at 15 percent O₂. (40 CFR 63.6602-Table 2c.3) from each of 13 Cat 3208 (225 hp) motors and two generators (285 hp and 215 hp)</p> <p>Emission of CO shall not exceed 49 ppmvd at 15 percent O₂ or CO emissions shall be reduced by 70 percent or more. (40 CFR 63.6602-Table 2c.4.a&b) from each of 14 Cat 3406 motors (420 hp) and one generator (90 hp).</p>	Recordkeeping	Continuous	

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II.B.2.d.1	The permittee shall perform all applicable monitoring required in 40 CFR 63.6625(f), 63.6625(j), 63.6640(a), 63.6640(a)-Table 6.9.a.i-ii, 63.6640(b)	Recordkeeping	Continuous	
II.B.2.d.2	The permittee shall maintain all records required in 40 CFR 63.6625(j), 63.6655(a), (a)(1)-(2), (a)(4)-(5), 63.6655(d)-(f), 63.6660(a)-(c).	Recordkeeping	Continuous	
II.B.2.d.3	The permittee shall submit all reports required in 63.6640(b), 63.6640(e), 63.6650(f).	Recordkeeping	Continuous	
Conditions on 05/06 Magnesium Chloride Storage Bins				
II.B.3.a	Discharge gas temperature shall be no greater than 150 degrees F.	Recordkeeping	Continuous	
II.B.3.a.1	The discharge gas temperature shall be monitored once per day with either a thermocouple or a thermometer, located in such a way that it may be safely read at any time. The instrument shall be calibrated once every 90 days in accordance with the manufacturers' recommendations.	Audit and Recordkeeping	Continuous	
II.B.3.a.2	Results of monitoring shall be maintained as described in Provision I.S.1 of this permit.	Recordkeeping	Continuous	
II.B.3.b	Emissions of Hydrochloric acid (Hydrogen chloride) shall be no greater than 47.5 lb/hr and no greater than 0.35 grain/dscf.	Source Testing	Continuous	Source testing demonstrating compliance was completed March 21, 2021.
II.B.3.b.1	Stack testing shall be performed as specified below: (a) Frequency. Emissions shall be tested annually based on the date of the most recent stack test. The initial test for this permit will be required to be completed within 12 months from the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.	Source Testing and Recordkeeping	Continuous	Stack testing was completed March 21, 2021. Notification: 60-day notification and protocol submitted to DAQ January 14, 2021.

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	<p>(b) Notification. At least 60 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.</p> <p>(c,d) See permit</p> <p>(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous six months.</p>			
II.B.3.b.2	Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.3.b.3	The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status.	Recordkeeping	Continuous	The stack testing report was submitted to DAQ on May 20, 2021.
II.B.3.c	Emissions of PM ₁₀ shall be no greater than 2.71 lb/hr and no greater than 0.016 grain/dscf.	Stack Testing	Continuous	Source testing demonstrating compliance was completed March 21, 2021.
II.B.3.c.1	<p>Stack testing shall be performed as specified below:</p> <p>(a) Frequency. Emissions shall be tested every 24 months. The permittee must test within 6 months of the date of this permit if the most recent stack test is dated back more than 24 months prior to the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.</p>	Source Testing and Recordkeeping	Continuous	Notification: 60-day notification and protocol submitted to DAQ January 14, 2021.

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	<p>(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.</p> <p>(c,d,e) <i>See permit</i></p> <p>(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous six months.</p>			
II.B.3.c.2	Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.3.c.3	The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.	Recordkeeping	Continuous	The stack testing report was submitted to DAQ on May 20, 2021.
II.B.3.d	Liquid recirculation rate shall be no less than 140 gpm. Recirculation liquor is the liquid to the packing plus the liquid to the duct sprays.	Recordkeeping	Intermittent	USM's six month reports to DAQ covering the periods from April 1, 2020 through September 30, 2020; October 1, 2020 through March 31, 2021; and April 1, 2021 to September 30, 2021 (to be submitted on or about October 30, 2021) identify or will identify deviations from the 05/06 Bin scrubber liquid recirculation rate.

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II.B.3.d.1	A flow meter measuring the recirculation liquor shall monitor the hourly average liquid flow rate using continuous parameter monitoring system (CPMS). Locate the flow sensor and other necessary equipment in a position that provides a representative flow. Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate. Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions. At least monthly, inspect all components for integrity, all electrical connection continuity, and all mechanical connections for leakage.	Recordkeeping	Continuous	
II.B.3.d.2	The records required for monitoring shall be maintained as described by Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.3.e	The scrubber hourly pressure drop shall be maintained at or above the minimum level established during the initial or subsequent performance test.	Recordkeeping	Continuous	Continuous pressure drop monitoring was in place during the reporting period.
II.B.3.e.1	A pressure sensor measuring the hourly average pressure drop using CPMS according to the requirements in 63.9916, 63.9920, and 63.9921(a)(1). Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure. Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range. Check the pressure tap for pluggage daily. Using a manometer, check gauge calibration quarterly and transducer calibration monthly. Conduct calibration checks any time the sensor exceed the manufacturer's specified maximum operating pressure range, or install a new pressure sensor. At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.	Recordkeeping	Continuous	

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II.B.3.e.2	The records required for monitoring shall be maintained as described by Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.3.f	Recirculated scrubber liquor shall be no greater than 5 % HCl concentration based on a 24-hour rolling average.	Liquor Samples ² and Recordkeeping	Continuous	
II.B.3.f.1	The HCl concentration shall be determined by sampling the scrubber liquor once every four hours and titrated in the lab with NaOH. Following each sample the permittee shall determine a new 24-hour rolling average to compare to the limit. The rate of blowdown shall be adjusted to maintain the liquor at the prescribed concentration.	Liquor Samples ³ and Recordkeeping	Continuous	
II.B.3.f.2	The permittee shall record the lab HCl results for each sample and the 24-hour rolling average calculations. The records required for monitoring shall be maintained as described by Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
Conditions on Chlorine Plant Bypass Scrubber				
II.B.4.a	The chlorine plant bypass scrubber (CPBS) shall control the chlorine emissions from the chlorine plant for a minimum of eight (8) hours per any 14 day period, whenever the chlorine plant is not operating. The recovery time for the CPBS to become fully operational after it has been used to control chlorine emissions from the chlorine plant shall not exceed fourteen (14) days. The CPBS shall be installed and operational by January 1, 2003.	Recordkeeping	Continuous	

² Liquor samples are taken every 4 hours and analyzed for HCl concentration.

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.4.a.1	The permittee shall monitor the operation of the chlorine plant bypass scrubber each time it is operated to show the number of hours the CPBS operated during all times of chlorine plant shut down. Additionally, the permittee shall monitor the recovery time of the CPBS.	Recordkeeping	Continuous	
II.B.4.a.2	The permittee shall record the number of hours the chlorine plant bypass scrubber operated during all times of chlorine plant shut down. Additionally, the permittee shall record the recovery of the CPBS system after each use, by noting the date and time the CPBS is fully ready (8 hour capacity) after it has been used. Results of monitoring shall be maintained as described in Provision I.S.1 of this permit.	Recordkeeping	Continuous	
II.B.4.a.3	The permittee shall submit a report to the Executive Secretary stating when the chlorine plant bypass scrubber is installed and operational. No additional reporting is required.	NA ³	NA ³	
Conditions on 01, 02, 03 Spray Dryers				
II.B.5.a	Emissions of Hydrochloric acid (Hydrogen chloride) shall be no greater than 200 lb/hr for each spray dryer.	Source Testing	Continuous	Source testing demonstrating compliance for Spray Dryers 01, 02 and 03 was completed March 18 to 22, 2021.

³ Initial required reporting completed. No additional reporting is required.

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.5.a.1	<p>Stack testing shall be performed as specified below:</p> <p>(a) Frequency. Emissions shall be tested annually based on the date of the most recent stack test. The initial test for this permit will be required to be completed within 12 months from the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.</p> <p>(b) Notification. At least 60 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.</p> <p>(c,d) <i>See permit</i></p> <p>(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous six months.</p>	Stack Testing	Continuous	<p>Stack testing was completed March 18 to 22, 2021.</p> <p>Notification: 60-day notification and protocol submitted to DAQ January 14, 2021.</p>
II.B.5.a.2	Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.5.a.3	The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.	Recordkeeping	Continuous	The stack testing report was submitted to DAQ on May 20, 2021.

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.5.b	Emissions of TSP shall be no greater than 100 lb/hr for each spray dryer.	Stack Testing	Continuous	Source testing demonstrating compliance for Spray Dryers 01, 02 and 03 was completed March 18 to 22, 2021.
II.B.5.b.1	<p>Stack testing shall be performed as specified below:</p> <p>(a) Frequency. Emissions shall be tested annually based on the date of the most recent stack test. The initial test for this permit will be required to be completed within 12 months from the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.</p> <p>(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.</p> <p>(c,d,e) <i>See permit</i></p> <p>(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous six months.</p>	Stack Testing	Continuous	<p>Stack testing on Spray Dryers 01, 02 and 03 was completed March 18 to 22, 2021.</p> <p>Notification: 60-day notification and protocol submitted to DAQ January 14, 2021.</p>
II.B.5.b.2	Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.5.b.3	The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.	Recordkeeping	Continuous	The stack testing report for Spray Dryers 01, 02 and 03 was submitted to DAQ on May 20, 2021.
II.B.5.c	The scrubber shall meet the following specifications for each spray dryer scrubber: Packing height/Volume 7 ft/3,800 cu ft Gas velocity in vessel 6.5 ft/sec minimum Scrubber liquor recirculation rate 2,000 gpm minimum Mist eliminator above packing.	Inspections and Recordkeeping	Continuous	
II.B.5.c.1	The permittee shall make at least one gas velocity and one liquid recirculation rate observation per day. The observation shall be made during typical operating conditions. The instrument(s) shall be calibrated every 90 days in accordance with manufacturer's instructions. Additionally, the gas velocity and liquid recirculation rate shall be observed and recorded at the time of any compliance stack testing. If the gas velocity or liquid recirculation rate drops below the limit, the permittee shall immediately investigate the cause and initiate corrective action to return the scrubber to proper operating parameters. If the gas velocity or liquid recirculation rate remains below the limit for greater than 48 hours from the initial deviation reading it shall be considered a deviation from this permit term. The permittee shall make at least one observation per each 6 month calendar period, of the packing height or	Inspections and Recordkeeping	Continuous	Gas velocity is calculated based on the exhaust gases from the gas turbines which are kept constant because of the inherent full loading characteristic of the turbine/generator system. Gas flow rate through the dryer is calculated from the input of natural gas and combustion gas into the turbine.

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
	<p>volume, and mist eliminator(s). If the packing height drops below the limit or the mist eliminator(s) are not in proper position above the packing, the permittee shall immediately investigate the cause and initiate corrective action to return the scrubber to proper operating parameter. If the scrubber is returned to operating status without the corrective action being completed it shall be considered a deviation from this permit term.</p> <p>The permittee shall ensure that the packing volume is a minimum of 3,800 cubic feet at all times. The permittee shall make a log of the packing volume any time packing is added or changed.</p>			
II.B.5.c.2	The permittee shall record the gas velocity and flow recirculation rate at least once per day that the unit operates. The permittee shall record the packing height and condition/position of the mist eliminator at least once per each 6 month calendar period that the unit operates. The permittee shall record the packing volume at any time packing is added or changed. All records shall be maintained in accordance with Provision I.S.1 of this permit.	Recordkeeping	Continuous	Gas flow rate through the dryer is calculated from the input of natural gas and combustion gas into the turbine.
II.B.5.d	The scrubber liquid flow rate shall be maintained at or above the minimum level established during the initial or subsequent performance test. Recirculation liquor is the liquid to the packing plus the liquid to the duct sprays.	Recordkeeping & Audit	Intermittent	USM's six month reports to DAQ covering the periods from April 1, 2020 through September 30, 2020; October 1, 2020 through March 31, 2021; and April 1, 2021 to September 30, 2021 (to be submitted on or about October 30, 2021) identify or will identify deviations from the 01, 02 and 03 Spray Dryer scrubber liquid recirculation rate.

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.5.d.1	A flow meter measuring the recirculation liquor shall monitor the hourly average liquid flow rate using continuous parameter monitoring system (CPMS) according to the requirements in 63.9921(b). Locate the flow sensor and other necessary equipment in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances. Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate. Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions. A least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.	Recordkeeping	Continuous	
II.B.5.d.2	The records required for monitoring shall be maintained as described by Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.5.e	The scrubber hourly pressure drop shall be maintained at or above the minimum level established during the initial or subsequent performance test.	Recordkeeping	Continuous	
II.B.5.e.1	A pressure sensor measuring the hourly average pressure drop using CPMS according to the requirements in 63.9916, 63.9920, and 63.9921(a)(1). Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure. Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range. Check the pressure tap for pluggage daily. Using a manometer, check gauge calibration quarterly and transducer calibration monthly. Conduct calibration checks any time the sensor exceed the manufacturer's specified operating pressure range, or install a new pressure sensor. At least monthly, inspect	Recordkeeping	Continuous	

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
	components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.			
II.B.5.e.2	The records required for monitoring shall be maintained as described by Provisions S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.5.f	The permittee shall use only natural gas for fuel.	Recordkeeping	Continuous	
II.B.5.f.2	Records shall be kept for all periods when natural gas is not being used as fuel. These records shall be recorded in a log that is kept in a readily accessible location on site.	Recordkeeping	Continuous	Only natural gas was used during the reporting period.
Conditions on Gas Turbine/Generators & Duct Burners				
II.B.6	The permittee shall use only natural gas as a primary fuel and #2 fuel oil as back-up fuel. The #2 fuel oil shall only be used during periods of natural gas curtailment and during testing and maintenance periods. Natural gas curtailment is defined as any period when the natural gas provider/supplier imposes an interruption of service, and the curtailment is involuntary and beyond the control of the permittee.	Recordkeeping	Continuous	
II.B.6.a.1	The permittee shall monitor the backup fuel usage on a monthly basis. The permittee may use meter reading, inventory records, purchase records or other appropriate records that show when backup fuel was utilized and the reason for using backup fuel (natural gas curtailment, maintenance, etc.).	Recordkeeping	Continuous	No backup fuel usage during the reporting period.
II.B.6.a.2	The permittee shall maintain records that document the reason for backup fuel usage (i.e. natural gas curtailment, maintenance, etc.), date, and duration. All readings required to be taken shall be documented and maintained consistent with the requirements of Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
Conditions on Chlorine Reduction Burner				
II.B.7	The CRB combustion temperature shall be no less than 1,650 degrees F or greater than 2,000 degrees F for more than 5 minutes in any 60 minute period when the CRB is operating.	Recordkeeping and Process Controls	Continuous	An instrument interlock system prevents the CRB from operating at temperatures above or below the permitted range.
II.B.7.a.1	The combustion chamber temperature shall be monitored continuously. The monitoring equipment shall be located such that an inspector can at any time safely read the output. The readings shall be accurate to within plus or minus 20 degrees F. All instruments shall be calibrated against a certified primary standard at least once every 90 days. The permittee shall maintain a working alarm system that notifies the operator when the CRB combustion temperature is outside the limited range.	Recordkeeping	Continuous	
II.B.7.a.2	Continuous recording of the monitoring device is required. The permittee shall record all instances of alarm on the CRB combustion temperature where the alarm indicates that the temperature is outside the limited range. The permittee shall record the date, time, temperature, and duration of each alarm incidence. All records shall be maintained in accordance with Provision I.S.1 of this permit.	Recordkeeping and Audit	Continuous	An instrument interlock system prevents the CRB from operating at temperatures above or below the permitted range.
II.B.7.b	The permittee shall use only natural gas for fuel.	Recordkeeping	Continuous	The CRB is not designed to operate with any fuel other than natural gas.
II.B.7.b.2	Records shall be kept for all periods when natural gas is not being used as fuel. These records shall be recorded in a log that is kept in a readily accessible location onsite.	Recordkeeping	Continuous	The CRB is not designed to operate with any fuel other than natural gas.
Condition on M/R Stack				
II.B.8.a	Emissions of Chlorine shall be no greater than 100.0 lb/hr.	Source Testing	Continuous	Source testing demonstrating compliance was completed March 18 and 19, 2021.

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for “undetermined” status; any excursions or exceedances (for CAM provisions only); etc.
II.B.8.a.1	<p>Stack testing shall be performed as specified below:</p> <p>(a) Frequency. Emissions shall be tested annually based on the date of the most recent stack test. The initial test for this permit will be required to be completed within 12 months from the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.</p> <p>(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.</p> <p>(c,d) <i>See permit</i></p> <p>(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous six months.</p>	Stack Testing	Continuous	<p>Stack testing was completed March 18 and 19, 2021.</p> <p>Notification: 60-day notification and protocol submitted to DAQ January 14, 2021.</p>
II.B.8.a.2	Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.8.a.3	The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.	Recordkeeping	Continuous	The stack testing report was submitted to DAQ on May 20, 2021.

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.8.b	Emissions of Hydrochloric acid (Hydrogen chloride) shall be no greater than 7.2 lb/hr.	Stack Testing	Continuous	Source testing performed on September 30, 2020 demonstrated compliance with the hydrogen chloride emission rate for the M/R stack.
II.B.8.b.1	<p>Stack testing shall be performed as specified below:</p> <p>(a) Frequency. Emissions shall be tested every 24 months. The permittee must test within 6 months of the date of this permit if the most recent stack test is dated back more than 24 months prior to the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.</p> <p>(b) Notification. At least 60 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.</p> <p>(c,d) <i>See permit</i></p> <p>(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous six months.</p>	Stack Testing	Continuous	Stack testing of the M/R stack for HCl was completed on September 30, 2020. Notification: 60-day notification and protocol submitted to DAQ July 9, 2020.
II.B.8.b.2	Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.8.b.3	The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.	Recordkeeping	Continuous	The stack testing report for the M/R stack for HCl was submitted to DAQ on November 25, 2020.
II.B.8.c	Emissions of PM ₁₀ shall be no greater than 13.1 lb/hr.	Stack Testing	Continuous	Stack testing demonstrating compliance was completed March 18-19, 2021.
II.8.c.1	<p>Stack testing shall be performed as specified below:</p> <p>(a) Frequency. Emissions shall be tested every 24 months. The permittee must test within 6 months of the date of this permit if the most recent stack test is dated back more than 24 months prior to the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.</p> <p>(b) Notification. At least 60 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.</p> <p>(c,d,e) See Permit</p> <p>(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous six months.</p>	Source Testing	Continuous	<p>Stack testing for PM was completed March 18-19, 2021.</p> <p>Notification: 60-day notification and protocol submitted to DAQ January 14, 2021.</p>
II.B.8.c.2	Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.8.c.3	The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.	Recordkeeping	Continuous	The stack testing report was submitted to DAQ on May 20, 2021.
II.B.8.d	Emissions of dioxin/furan shall be no greater than 36 ng TEQ/dscm corrected to 7% oxygen.	Recordkeeping	Continuous	Source testing demonstrating compliance was completed March 18-19, 2021.
II.B.8.d.1	<p>Stack testing shall be performed as specified below:</p> <p>(a) Frequency. Emissions shall be tested every 30 months. The permittee must test within 6 months of the date of this permit if the most recent stack test is dated back more than 24 months prior to the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.</p> <p>(b) Notification. At least 60 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.</p> <p>(c,d,e) <i>See Permit</i></p> <p>(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous six months.</p>	Source testing	Continuous	<p>Stack testing for dioxin/furan was completed March 18-19, 2021.</p> <p>Notification: 60-day notification and protocol submitted to DAQ January 14, 2021.</p>
II.B.8.d.2	Results of the stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.8.d.3	The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status.	Recordkeeping	Continuous	The stack testing report was submitted to DAQ on May 20, 2021.
II.B.8.3	The scrubber liquid flow rate shall be maintained at or above the minimum level established during the initial or subsequent performance test. Recirculation liquor is the liquid to the packing plus the liquid to the duct sprays.	Recordkeeping	Intermittent	USM's six month reports to DAQ covering the periods from April 1, 2020 through September 30, 2020; October 1, 2020 through March 31, 2021; and April 1, 2021 to September 30, 2021 (to be submitted on or about October 30, 2021) identify or will identify deviations from the M/R (CRB, east and west packed towers, and high energy scrubber) scrubber liquid recirculation rate.
II.B.8.e.1	A flow meter measuring the recirculation liquor shall monitor the hourly average liquid flow rate using continuous parameter monitoring system (CPMS) according to the requirements in 63.9921(b). Locate the flow sensor and other necessary equipment in a position that provides a representative flow. Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate. Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions. At least monthly inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.	Recordkeeping	Continuous	
II.B.8.e.2	The records required for monitoring shall be maintained as described by Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.8.f	The scrubber hourly pressure drop shall be maintained at or above the minimum level established during the initial or subsequent performance test.	Recordkeeping	Continuous	

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.8.f.1	A pressure sensor measuring the hourly average pressure drop using CPMS according to the requirements in 63.9916, 63.9920, and 63.9921(a)(1). Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure. Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range. Check the pressure tap for pluggage daily. Using a manometer, check gauge calibration quarterly and transducer calibration monthly. Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor. At least monthly inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.	Recordkeeping	Continuous	
II.B.8.f.2	The records required for monitoring shall be maintained as described by Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
Conditions on Emergency Off Gas Stack				
II.B.9.a	The minimum liquid flow rate to the EOG scrubber shall be no less than 85 gallons/minute and the scrubber liquid flow rate shall be maintained at or above the minimum level established during the initial or subsequent performance test.	Recordkeeping	Intermittent	USM's six month reports to DAQ covering the periods from April 1, 2020 through September 30, 2020; October 1, 2020 through March 31, 2021; and April 1, 2021 to September 30, 2021 (to be submitted on or about October 30, 2021) identify or will identify deviations from the EOG scrubber liquid recirculation rate.

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Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.9.a.1	A flow meter measuring the recirculation liquor shall monitor the hourly average liquid flow rate using CPMS according to the requirements in 63.9921(b). Locate the flow sensor and other necessary equipment in a position that provides a representative flow. Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate. Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions. At least monthly inspect all components for integrity, all electrical connections for continuity and all mechanical connections for leakage.	Recordkeeping	Continuous	
II.B.9.a.2	Continuous recording of the monitoring device is not required. A record of the flow shall be made on a daily basis and shall be maintained as described in Provision I.S.1 of this permit.	Recordkeeping	Continuous	
II.B.9.b	The scrubber hourly pressure drop shall be maintained at or above the minimum level established during the initial or subsequent performance test.	Recordkeeping	Continuous	
II.B.9.b.1	A pressure sensor measuring the hourly average pressure drop using CPMS according to the requirements in 63.9916, 63.9920, and 63.9921(a)(1). Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure. Use a flow gauge with a minimum measurement sensitivity of 0.5 inches of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range. Check the pressure tap for pluggage daily. Using a manometer, check gauge calibration quarterly and transducer calibration monthly. Conduct calibration checks at any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor. At least monthly, inspect all components for integrity, all electrical	Recordkeeping	Continuous	

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
	connections for continuity, and all mechanical connections for leakage.			
II.B.9.b.2	The records required for monitoring shall be maintained as described by Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.9.c	Emissions of Chlorine shall be no greater than 26.0 lb/hr.	Stack Testing	Continuous	Source testing on March 20, 2021 demonstrated compliance with the chlorine emission rate for the EOG stack.
II.B.9.c.1	<p>Stack testing shall be performed as specified below:</p> <p>(a) Frequency. Emissions shall be tested every two years based on the date of the most recent stack test. The permittee must test within 12-months of the date of this permit if the most recent stack test is dated back more than 12-months prior to the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.</p> <p>(b) Notification. At least 60 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.</p> <p>(c,d) See Permit</p> <p>(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three six months.</p>	Source Testing	Continuous	<p>Stack testing for chlorine was completed March 20, 2021.</p> <p>Notification: 60-day notification and protocol submitted to DAQ January 14, 2021.</p>
II.B.9.c.2	Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	

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Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.9.c.3	The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.	Recordkeeping	Continuous	The stack testing report was submitted to DAQ on May 20, 2021.
II.B.9.d	Emissions of Hydrochloric acid (Hydrogen chloride) shall be no greater than 46.0 lb/hr.	Recordkeeping and Source Testing	Continuous	Source testing demonstrating compliance was completed March 20, 2021.
II.B.9.d.1	<p>Stack testing shall be performed as specified below:</p> <p>(a) Frequency. Emissions shall be tested every two years based on the date of the most recent stack test. The permittee must test within 12-months of the date of this permit if the most recent stack test is dated back more than 12-months prior to the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.</p> <p>(b) Notification. At least 60 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.</p> <p>(c,d) <i>See Permit</i></p> <p>(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous six months.</p>	Source Testing	Continuous	<p>Stack testing for hydrogen chloride was completed March 20, 2021.</p> <p>Notification: 60-day notification and protocol submitted to DAQ January 14, 2021.</p>

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II.B.9.d.2	Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.9.d.3	The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.	Recordkeeping	Continuous	The stack testing report was submitted to DAQ on May 20, 2021.
II.B.9.e	Emissions of TSP shall be no greater than 37.5 lb/hr.	Recordkeeping and Source Testing	Continuous	Source testing demonstrating compliance was completed March 20, 2021.
II.B.9.e.1	<p>Stack testing shall be performed as specified below:</p> <p>(a) Frequency. Emissions shall be tested every two years based on the date of the most recent stack test. The permittee must test within 12-months of the date of this permit if the most recent stack test is dated back more than 12-months prior to the date of this permit. The source may also be tested at any time if directed by the Executive Secretary.</p> <p>(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.</p> <p>(c,d,e) See Permit</p> <p>(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90%</p>	Source Testing	Continuous	<p>Stack testing for PM (TSP) was completed March 20, 2021.</p> <p>Notification: 60-day notification and protocol submitted to DAQ January 14, 2021.</p>

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Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for “undetermined” status; any excursions or exceedances (for CAM provisions only); etc.
	of the maximum production achieved in the previous six months.			
II.B.9.e.2	Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.	Recordkeeping	Continuous	
II.B.9.e.3	The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.	Recordkeeping	Continuous	The stack testing report was submitted to DAQ on May 20, 2021.
Conditions on Melt Purification System & Auxiliary Heating System				
II.B.10.a	The permittee shall use only natural gas for fuel.	Recordkeeping	Continuous	The cell preheating system is not designed to operate on any fuel other than natural gas.
II.B.10.a.2	Records shall be kept for all periods when natural gas is not being used as fuel. These records shall be recorded in a log that is kept in a readily accessible location onsite.	Recordkeeping	Continuous	The cell preheating system is not designed to operate on any fuel other than natural gas.
Conditions on Electrolytic Cells – M-Cells and Amax Cells				
II.B.11.a	The permittee shall have no more than 120 electrolytic cells in use, consisting of M cells and Amax sealed cells and no more than 30 of the 120 shall be Amax sealed cells.	Recordkeeping	Continuous	
II.B.11.a.2	Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.	Recordkeeping	Continuous	
Conditions on Auxiliary Heating System				
II.B.12.a	The permittee shall use only natural gas for fuel.	Recordkeeping	Continuous	

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II.B.12.a.2	Records shall be kept for all periods when natural gas is not being used as fuel. These records shall be recorded in a log that is kept in a readily accessible location onsite.	Recordkeeping	Continuous	Only natural gas was used for fuel during the reporting period.
Conditions on Casthouse Furnaces				
II.B.13.a	Casthouse furnaces #1 through #11 shall have the molten magnesium surfaces covered with a molten flux when operating. Furnace covers and inert gas can be used as an alternative to the use of molten flux.	Daily Visual Inspection	Continuous	
II.B.13.a.1	Visual inspections shall be made daily by a shift supervisor to determine compliance with this condition.	Recordkeeping	Continuous	
II.B.13.a.2	A log of the visual inspections shall be maintained in accordance with Provision I.S.1 of this permit, including the date and time of each inspection and the name of the person making the inspection.	Recordkeeping	Continuous	
Conditions on Covered Electric Casthouse Furnaces				
II.B.14.a	Casthouse Furnaces #12, #13 and #14 shall have the molten surfaces covered and purged with an SO2/air mixture, R134a or other inert gas when operating.	Daily Visual Inspection	Continuous	
II.B.14.a.1	Visual inspections shall be made daily by a shift supervisor to determine compliance with this condition.	Recordkeeping	Continuous	
II.B.14.a.2	A log of the visual inspections shall be maintained in accordance with Provision I.S.1 of this permit, including the date and time of each inspection and the name of the person making the inspection.	Recordkeeping	Continuous	
Conditions on Casthouse Packed Bed Scrubber				
II.B.15.a	Visible emissions shall be no greater than 15 percent opacity	Recordkeeping	Continuous	Scrubber was not operated during this reporting period.
II.B.15.a.1	A visual opacity survey shall be performed on a quarterly basis by an individual trained on the observation procedures or 40 CFR 60, Appendix A, Method 9.	Recordkeeping	Continuous	Scrubber was not operated during this reporting period.

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II.B.15.a.2	A log of the visual opacity survey(s) shall be maintained in accordance with Condition I.3 of the permit.	Recordkeeping	Continuous	Scrubber was not operated during this reporting period.
II.B.15.b	The scrubber shall meet the following specifications for spray dryer scrubber: Packing Volume 75 cu ft Scrubber liquor recirculation rate 100 gpm minimum	Recordkeeping	Continuous	Scrubber was not operated during this reporting period.
II.B.15.b.1	The permittee shall make at least one recirculation liquid flow observation each week for the scrubber. The liquid flow reading shall be made to within +/- 10% of the maximum scrubber flow rate. The observation shall be made during typical operating conditions. The instrument(s) shall be calibrated in accordance with manufacturer's instructions. Additionally, the liquid flow rate for the scrubber shall be observed and recorded at the time of any compliance stack testing. The permittee shall make at least one observation per each 12-month calendar period of the packing volume. The permittee shall make a log of the packing volume any time packing is added or changed.	Recordkeeping	Continuous	Scrubber was not operated during this reporting period.
II.B.15.b.2	The permittee shall record at least one recirculation liquid flow observation each week for each scrubber listed above that has operated during the week. If the liquid flow rate is outside of the listed ranges, US Magnesium LLC shall record the liquid flow observations daily until the scrubber is operating within the listed ranges. Records shall be maintained in accordance with Condition I.3 of this permit.	Recordkeeping	Continuous	Scrubber was not operated during this reporting period.

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Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
Conditions on Bulk Solids Carbon Unloading Station				
II.B.16.a	Visible emissions shall be no greater than 10 percent opacity.	VEO ¹ and Recordkeeping	Continuous	
II.B.16.a.1	A visual opacity survey of each affected emission unit shall be performed on a quarterly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than condensed water vapor are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9 for point sources, and in accordance 58 FR 61640 Method 203A for fugitive sources.	VEO ¹ and Recordkeeping	Continuous	
II.B.16.a.2	A log of the visual opacity survey(s) shall be maintained in accordance with Provision I.S.1 of this permit. If an opacity determination is indicated, a notation of the determination will be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 or 58 FR 61640 Method 203A shall also be maintained in accordance with Provision I.S.1 of this permit.	Recordkeeping	Continuous	
II.B.16.b	The identified emission units shall be enclosed.	Visual Inspection	Continuous	
II.B.16.b.2	Visual observations shall be made once per year to determine compliance with this condition.	Visual Inspection	Continuous	
Conditions on Sandblasting Booth				
II.B.17.a	All sandblasting and shotblasting of pieces small enough to fit in the sandblast booth shall be performed inside the sandblast booth with all doors or other openings in the room sealed such that air in the room can only exit through the fabric filter.	Audit and Visual Inspection	Continuous	

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Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.17.a.1	The permittee shall visually inspect the sandblast booth once each calendar quarter. The inspection shall include the seals of any door or opening in the room and that the fabric filter is properly in place and sufficiently clean.	Visual Inspection and Recordkeeping	Continuous	
II.B.17.a.2	A log of the visual inspections shall be maintained in accordance with Provision I.S.1 of this permit, including the date and time of each inspection and the name of the person making the inspection.	Recordkeeping	Continuous	
II.B.17.b	Visible emissions shall be no greater than 40 percent opacity.	VEO ¹ and Recordkeeping	Continuous	
II.B.17.b.1	Visible emission evaluation of abrasive blasting operations shall be conducted at least semi-annually in accordance with the following provisions: (a,b,c,d,e,f) See Permit	VEO ¹ and Recordkeeping	Continuous	
II.B.17.b.2	Records of visible emissions evaluations and documentation that demonstrates adherence to the performance standards in R307-206 shall be maintained.	Recordkeeping	Continuous	
Conditions on Unconfined Abrasive Blasting				
II.B.18.a	Visible emissions shall be no greater than 40 percent opacity.	VEO ¹ and Recordkeeping	Continuous	
II.B.18.a.1	Visible emission evaluation shall be conducted every six months if abrasive blasting operations are conducted. Visible emission evaluation of abrasive blasting operations shall be conducted in accordance with the following provisions: (a,b,c) See Permit	VEO ¹ and Recordkeeping	Continuous	
II.B.18.a.2	Records of visible emissions evaluations and documentation that demonstrates adherence to the performance standards in R307-206 shall be maintained.	Recordkeeping	Continuous	

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Conditions on Auto Shop Paint Booth & Paint Cleaning Booth				
II.B.19.a	Consumption of paint and thinner shall be no greater than 300 gallons per rolling 12-month period for paint, and 200 gallons per rolling 12-month period for paint thinner.	Inspection and Recordkeeping	NA	The paint booth was not used (i.e., no use of paint or paint thinner) during the reporting period. Not applicable (NA) for II.B.19.a.1 through II.B.19.d.2.
II.B.19.a.1	Compliance with the limitation shall be determined on a rolling 12-month total. The permittee shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records shall be kept on a daily basis when in operation	Recordkeeping	NA	Refer to II.B19.a
II.B.19.a.2	Daily consumption or usage records shall be maintained for all periods of operation as described by Provision S.1. of Section I of this permit. These records can utilize purchase records and/or operation logs as a basis for consumption determinations.	Recordkeeping	NA	Refer to II.B19.a
II.B.19.b	All air exiting the paint booths shall pass through paint arrestor particulate filters before being vented to the atmosphere.	Visual Inspection	NA	Refer to II.B19.a
II.B.19.b.1	Visual inspections of paint booth filter type, installation, and condition shall be made on a monthly basis. Filters that are the wrong type, improper installation, or poor condition shall be immediately repaired or replaced.	Visual Inspection and Recordkeeping	NA	Refer to II.B19.a
II.B.19.b.2	A log shall be kept on the results of visual inspections of the paint booth filters. Filters that are damaged, clogged, improperly installed, incorrect filters installed or any other circumstance that limits filter effectiveness shall be documented.	Recordkeeping	NA	Refer to II.B19.a
II.B.19.c	Visible emissions shall be no greater than 10 percent opacity.	VEO ¹ and Recordkeeping	NA	Refer to II.B19.a

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II.B.19.c.1	Opacity observations of emissions shall be conducted annually in accordance with 40 CFR Part 60, Appendix A, Method 9.	Recordkeeping	NA	Refer to II.B19.a
II.B.19.c.2	Results from opacity observations and all data required by 40 CFR 60, Appendix A, Method 9 shall be recorded and maintained in accordance with Provision I.S.1 of this permit.	Recordkeeping	NA	Refer to II.B19.a
II.B.19.d	Emissions of VOC shall be no greater than 0.81 tons per rolling 12-month period, and emissions of all HAP's combined shall be no greater than 0.61 tons per rolling 12-month period.	Recordkeeping	NA	Refer to II.B19.a
II.B.19.d.1	Compliance with the limitation shall be determined on a rolling 12-month total. The permittee shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records shall be kept on a daily basis when in operation.	Recordkeeping	NA	Refer to II.B19.a
II.B.19.d.2	VOC and HAP emissions shall be determined by maintaining a record of VOC potential and HAP potential contained in the materials used each month. The records shall be kept for all periods when the auto shop paint booth is in operation and include the following data for each material used:	Recordkeeping	NA	Refer to II.B19.a

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Conditions on Fire Water Pump				
II.B.20.a(1)	<p>The permittee shall operate the affected emission unit according to the requirements in paragraphs 1.a through 1.c. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per years, as described in 1.a. through 1.c, is prohibited.</p> <p>(a) There is no time limit on engine use for emergency situations.</p> <p>(b) The emergency engine may operate for any combination of the purposes specified in paragraphs (b)(i) through (iii) for a maximum of 100 hours per calendar year.</p> <p>(c) The emergency engine may be operated for up to 50 hours per calendar year in non-emergency situations.</p>	Recordkeeping	Continuous	
II.B.20.a(2)	<p>The permittee shall meet the following requirements at all times, except during period of startup:</p> <p>(a) Change oil and filter every 500 hours of operation or annually, which comes first, or utilizing an oil analysis program as described under 40 CFR 63.6625(j)</p> <p>(b) Inspection spark plugs every 1,000 hours of operation or annually, whichever comes first</p> <p>(c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first and replace as necessary.</p>	Recordkeeping	Continuous	
II.B.20.a(3)	The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ.	Recordkeeping	Continuous	

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II.B.20.a.1	The permittee shall install a non-resettable hour meter if one is not already installed.	Audit	Continuous	
II.B.20.a.2	<p>The permittee shall keep the records described in 40 CFR 63.6655(a)(1)-(5), as applicable.</p> <p>The permittee shall keep records of the hours of operation of the engine that are recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operations. If the engines are used for demand response operation, the permittee shall keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.</p>	Recordkeeping	Continuous	
II.B.20.a.3	<p>The permittee shall report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.</p> <p>The permittee shall report each instance in which it did not meet an applicable operating limit in 40 CFR 63 Subpart ZZZZ Table 2c.</p> <p>If malfunction occurs during the reporting period, the permittee shall submit a compliance report semiannually according to the requirements of 40 CFR 63.6650(b).</p>	Recordkeeping	Continuous	

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II.B.20.b	The permittee shall operate and maintain the affected emission unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Recordkeeping	Continuous	
II.B.20.b.2	The permittee shall keep the records described in 40 CFR 63.6655(a)(1)-(5) as applicable.	Recordkeeping	Continuous	
Conditions on Hydrochloric Acid Production Unit				
II.B.21.a	Emissions to the atmosphere from the HCl Production Unit stack shall not exceed the permitted concentrations.	Source Testing	Continuous	Source testing demonstrating compliance was completed October 1, 2020.
II.B.21.a.1	Stack testing shall be performed as specified in the permit	Recordkeeping	Continuous	Stack testing for Cl ₂ and HCl was completed October 1, 2020. Notification: 60-day notification and protocol submitted to DAQ July 9, 2020.
II.B.21.a.3	The results of stack testing shall be submitted to the Director within 60 days of completion of the testing.	Recordkeeping	Continuous	The stack testing report was submitted to DAQ on November 25, 2020.
II.B.21.b	The permittee shall operate at all times according to an equipment Leak Detection and Repair (LDAR) plan prepared as required by 40 CFR 63 Subpart NNNNN.	Recordkeeping	Continuous	

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II.B.21.c	The permittee shall comply with the applicable General Provisions in 40 CFR 63.1-15 as identified in Table 7 of 40 CFR 63 Subpart NNNNN.	Recordkeeping	Intermittent	Source testing performed October 1, 2020 demonstrated compliance. A summary of the total duration of the deviations and the total duration as a percent of the total source operating time during that reporting period per §63.9931(b)(8)(v) were reported in the Semiannual NESHAP Reports for US Magnesium LLC covering the period July 1, 2020 to December 31, 2020 and January 1, 2021 to June 30, 2021.
Conditions on Sodium Hydroxide Scrubber				
II.B.22.a	The scrubber recirculated liquor HCl concentration shall be no greater than 5% based on a 24-hour rolling average and a pH of not less than 8.0.	Recordkeeping	Continuous	The HCl acid plant is not operated continuously and, at times, for less than 24 continuous hours per day. On those days, a rolling 24-hour average cannot be calculated, but is calculated using the 4-hour HCL sample results and block 1-hour pH readings during the operating period.
II.B.22.a.1	The HCl concentration shall be determined by sampling the scrubber liquor once every four hours and titrated in the lab with NaOH. Following each sample the permittee shall determine a new 24-hour rolling average to compare to the limit.	Recordkeeping	Continuous	See II.B.22.a above.
II.B.22.a.2	The permittee shall record the lab HCl results for each sample and the 24-hour rolling average calculations.	Recordkeeping	Continuous	See II.B.22.a above.

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II.B.22.b	The permittee shall demonstrate continuous compliance with a minimum recirculating liquid flow rate for the sodium hydroxide scrubber. The permittee shall establish minimum value based on the scrubber recirculating liquid flow rate measured during the performance test.	Recordkeeping	Intermittent	A summary of the total duration of the deviations and the total duration as a percent of the total source operating time during that reporting period per §63.9931(b)(8)(v) were reported in the Semiannual NESHAP Reports for US Magnesium LLC covering the period July 1, 2020 to December 31, 2020 and January 1, 2021 to June 30, 2021.
II.B.22.b.1	The permittee shall perform all applicable monitoring required in 63.9000(b) Table 2, Item 1, 63.9020, 63.9025, 63.9035(a), and 63.9040.	Recordkeeping	Continuous	
II.B.22.b.2	The permittee shall maintain all records required in 40 CFR 63.9045, 63.9035(b), 63.9040, 63.9045, 63.9055, and 63.9060.	Recordkeeping	Continuous	
II.B.22.b.3	The permittee shall submit all reports required in 40 CFR 63.9030, 63.9045, and 63.9050.	Recordkeeping	Continuous	
Conditions on Catalytic Oxidizer				
II.B.23.a	Exit temperature from the catalytic oxidizer shall not exceed 650 degrees F.	Recordkeeping	Continuous	
II.B.23.a.1	The operating temperature shall be monitored hourly. The monitoring equipment shall be located such that an inspector can at any time safely read the output. All instruments shall be calibrated against a certified primary standard at least once a year.	Recordkeeping	Continuous	
II.B.23.a.2	Permittee shall record the temperature at a minimum of once per hour of operations.	Recordkeeping	Continuous	

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Conditions on Packed Bed Tower Load-out Scrubber				
II.B.24.a	The HCl storage tank and transfer operations shall be controlled by the packed bed tower scrubber. The packed bed tower scrubber shall be capable of reducing HCl emissions by 99.9% or greater or achieving an outlet concentration of 12 ppm by volume or less.	Recordkeeping	Continuous	USM submitted Design Information for HCl Storage/Load-Out Scrubber to meet the concentration limit as recently as November 5, 2019.
II.B.24.a.1	If the permittee chooses to demonstrate compliance with the percent reduction requirement, the permittee shall submit to the Director a design evaluation prepared in accordance with 40 CFR 63.9020(c).	NA	NA	
II.B.24.a.2	The permittee shall maintain all records required in 40 CFR 63.9032, 63.9035(b), 63.9040, 63.9045, 63.9055, and 63.9060.	Recordkeeping	Continuous	
II.B.24.a.3	The permittee shall submit all reports required in 40 CFR 63.9030, 63.9045, and 63.9050.	Recordkeeping	Continuous	
II.B.24.b	The permittee shall establish minimum values for the scrubber inlet liquid or recirculating rate as specified 40 CFR 63.9020(e)(3).	Design Evaluation	Continuous	
II.B.24.b.3	The permittee shall submit all reports required in 40 CFR 63.9045, and 63.9050.	Recordkeeping	Continuous	
Conditions on Lithium Carbonate Plant				
II.B.25.a	By October 20, 2021, the permittee shall submit documentation of the status of construction of the Lithium Carbonate Plant to the Director.	Documentation	Continuous	US Magnesium submitted an initial Status of Construction of the Lithium Carbonate Plant to DAQ on November 25, 2020.
II.B.25.b	The production of lithium carbonate shall not exceed 15,000 tons per rolling 12-month period. The permittee shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months.	Recordkeeping	Continuous	July 2021 was the first month that a rolling 12-month production value could be calculated (i.e., 12 th month of production).

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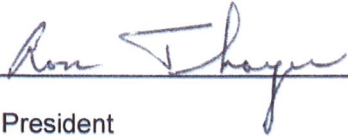
Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.25.c	Visible emissions shall be no greater than 10 percent opacity.	VEO ¹ and Recordkeeping	Continuous	
Conditions on Baghouse at LCP				
II.B.26.a	Each baghouse shall operate within the static pressure range recommended by the manufacturer for normal operations. The static pressure range shall be clearly labeled on each baghouse such that an inspector/operator can safely read the range at any time. Manometer or magnehelic pressure gauges shall be installed to measure the differential pressure across each of the baghouses.	Recordkeeping	Intermittent	
Conditions on Boilers and Burners at LCP				
II.B.27.a	Emissions to the atmosphere from each of boilers and burners at the Lithium Carbonate Plant shall not exceed the permit-defined concentrations.	Stack Testing	Continuous	Source testing demonstrating compliance was completed October 1, 2020 for the 1500 hp boiler which was and is the only operational boiler at the LCP. The 2000 hp boiler was not in operation throughout the reporting period. No burners have been installed or operated during the reporting period.
II.B.27.a.1	Stack testing shall be performed as specified.	Recordkeeping	Continuous	The 1500 hp boiler was stack tested October 1, 2020. Notification: 60-day notification and protocol submitted to DAQ July 9, 2020.
II.B.27.a.3	The results of the stack testing shall be submitted to the Director within 60 days of completion of the testing.	Recordkeeping	Continuous	The stack testing report was submitted to DAQ on November 25, 2020.
II.B.27.b	The permittee shall conduct a tune-up for each affected emission unit every 5 years as specified in 40 CFR 63.7540(a)(12).	NA	NA	The tune-up for the 1500 hp boiler will not be due until 2025. The 2000 hp boiler was not in operation throughout the reporting period.

COMPLIANCE CERTIFICATION REPORT

Term	Description of permit provision	Method used to determine compliance status	Was compliance during report period continuous, intermittent or undetermined?	Other info relevant to compliance status, including references to any and all deviations; reason for "undetermined" status; any excursions or exceedances (for CAM provisions only); etc.
II.B.27.c	At all times, the permittee shall operate and maintain each affected emission unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Audits and Recordkeeping	Continuous	
II.B.27.d	The permittee shall maintain records of the total amount of each affected emission unit fuel delivered each calendar month.	Recordkeeping	Intermittent	
Conditions on Riley Boiler				
II.B.28.a	At all times, the permittee shall operate and maintain each affected emission unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.	Audit and Recordkeeping	Continuous	
II.B.28.b	The permittee shall conduct a tune-up of the emission unit annually as specified in 40 CFR 63.7540(a)(10).	Recordkeeping	Planned	The 2021 annual tune-up has not been performed as of September 30, 2021. Annual tune-up is planned to be performed in 4Q 2021.
II.B.28.c	The permittee shall have a one-time energy assessment performed by a qualified energy assessor.	Documentation	One-time	The Riley boiler energy assessment was submitted to DAQ and EPA on March 12, 2021.

COMPLIANCE CERTIFICATION REPORT

In accordance with Operating Permit provision I.K and UAC R307-415-5d, and based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete.



Ron Thayer, President

9/30/21

Date